

## Abstract

A spoolable composite member having a sensor and an energy conductor  
5 embedded in the composite member. The spoolable composite member is capable of  
being spooled onto a reel for storage and for use in oil field applications. The  
spoolable tube exhibits unique anisotropic characteristics that provide improved burst  
and collapse pressures, increased tensile strength, compression strength, and load  
10 carrying capacity, while still remaining sufficiently bendable to be spooled onto a reel  
in an open bore configuration. The spoolable composite tube can include an inner  
protective layer, an inner pressure barrier layer, an interface layer, fiber composite  
layers, an outer pressure barrier layer, and an outer protective layer.

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